

Trimble's GNSS technology to aid landmine identification and clearance in Ukraine



Trimble has announced a partnership with the HALO Trust, the world's largest landmine-clearing non-profit organization, to help expand its demining operations across Ukraine. The grant from the Trimble Foundation Fund will focus on strengthening the HALO Trust's capacity to locate and remove landmines, unexploded ordnance and other explosive hazards from civilian areas to create safer

communities. In addition, it will enable HALO to support the Ukrainian national authorities in planning and coordinating landmine clearance activities by streamlining the mapping and data flow from the operational teams in the field to the national database.

The Russian invasion of Ukraine has resulted in the contamination of massive swaths of the country with landmines, unexploded ordnance and improvised explosive devices. These explosive hazards block access to farmland, impede reconstruction efforts, prevent displaced persons from returning to their homes and continue to hinder the safety of Ukrainian civilians. The Ukrainian government estimates that 174,000km² of the country's land may be contaminated.



A mine clearance team in Ukraine setting up a Trimble R2 GNSS receiver that is used to map landmines and cleared land at 2cm spatial accuracy.

Thousand staff members on the ground

HALO has been on the ground in Ukraine since 2016. More than a thousand members of staff are active daily, both to clear explosives in critical priority areas and to recruit and train hundreds of new staff members to help keep communities safe from dangerous weapons left behind.

Global navigation satellite system (GNSS) technology for surveying and mapping has played a significant role in the success of HALO's operations around the world, including in Ukraine. Over the last six years, Trimble R1 and Trimble R2 GNSS receivers have been used by HALO in conjunction with Esri ArcGIS Survey123 software for the identification and clearance of landmines.



A survey team leader in Ukraine recording coordinates for the perimeter of a minefield using the Trimble DA2 and Survey123.

More accurate maps and streamlined data flows

Trimble's Geospatial and Positioning Services businesses have now provided HALO with a new deployment of 255 high-precision Trimble DA2 GNSS receivers with Trimble Catalyst corrections service. This will enable HALO to modernize and transform its landmine clearance operations by providing improved accuracy for more detailed maps, streamlined data flows and increased operational efficiency and safety.

To date, the Trimble DA2 receivers are the largest hardware donation made to HALO in the organization's history. They are already being used in Ukraine and will soon be used elsewhere in the world too. "We are dedicated to saving lives by clearing landmines and other deadly explosives to make land safe. Only then can families rebuild their lives and walk without fear," said Chris Whatley, executive director of the HALO Trust USA.

Faster mine location and clearance

"Thanks to Trimble's cutting-edge technology, we have dramatically enhanced our ability to locate and rapidly clear these explosive devices. Partnering with Trimble and the Trimble Foundation Fund reflects the power of collaboration and innovation in tackling the world's

most pressing humanitarian challenges, and we look forward to seeing the impact it will have on our life-saving work in Ukraine and around the world,” he continues.

“One of Trimble’s core principles is to serve communities and societies in powerful, positive ways,” said Emily Saunoi-Sandgren, chair of the [Trimble Foundation Fund](#). This donor-advised fund is aligned to Trimble’s commitment towards building a more sustainable future, particularly by supporting natural disaster and climate resilience, promoting female education and empowerment, and advancing diversity, equity and inclusion.

Transforming lives and livelihoods

“Saving lives through the removal of dangerous debris left from war is a courageous example of how humanitarian efforts can positively transform people’s lives and livelihoods. Supporting the HALO Trust’s important and impactful work helps the people of Ukraine and other countries worldwide recover and rebuild after conflict,” she concludes.



Mapping cleared Cluster Munitions in urban areas where accuracy is critical

For more information about the HALO Trust’s work, visit www.halotrust.org. For more details about Trimble and its products, go to www.trimble.com.

<https://www.gim-international.com/content/news/trimble-s-gnss-technology-to-aid-landmine-identification-and-clearance-in-ukraine>
